$f(x) = (x-2)^3(x+1)^2$

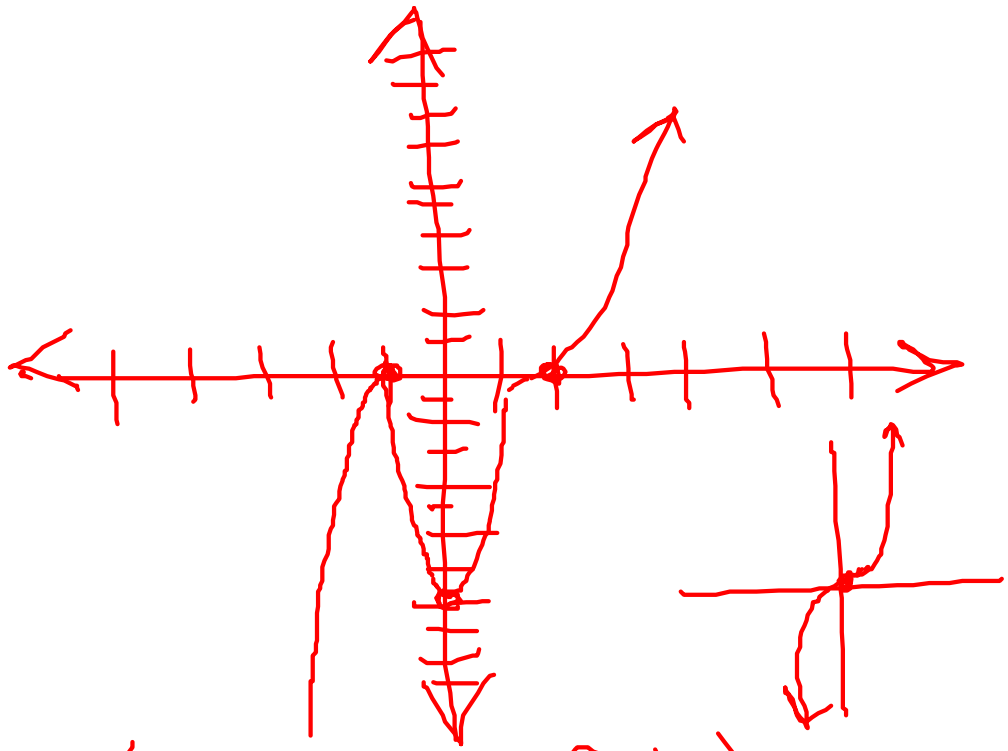
Deg = 5

⊕ Leading ↑

Turning Pts (max) 4

Zeros 2 mult 3

−1 mult 2 ⊗ touch



$f(0) = -8$

(6b) $f(x) = \dfrac{x^2+4}{x+2}$

VA $x = -2$

HA $-2\overline{)\,1\;0\;4}$

(66) $f(x) = \frac{-2}{x^2+1}$

VA $x^2+1 \neq 0$

HA $y = 0$

$\frac{-2}{x^2+1} = 0$

$-2 \neq 0$

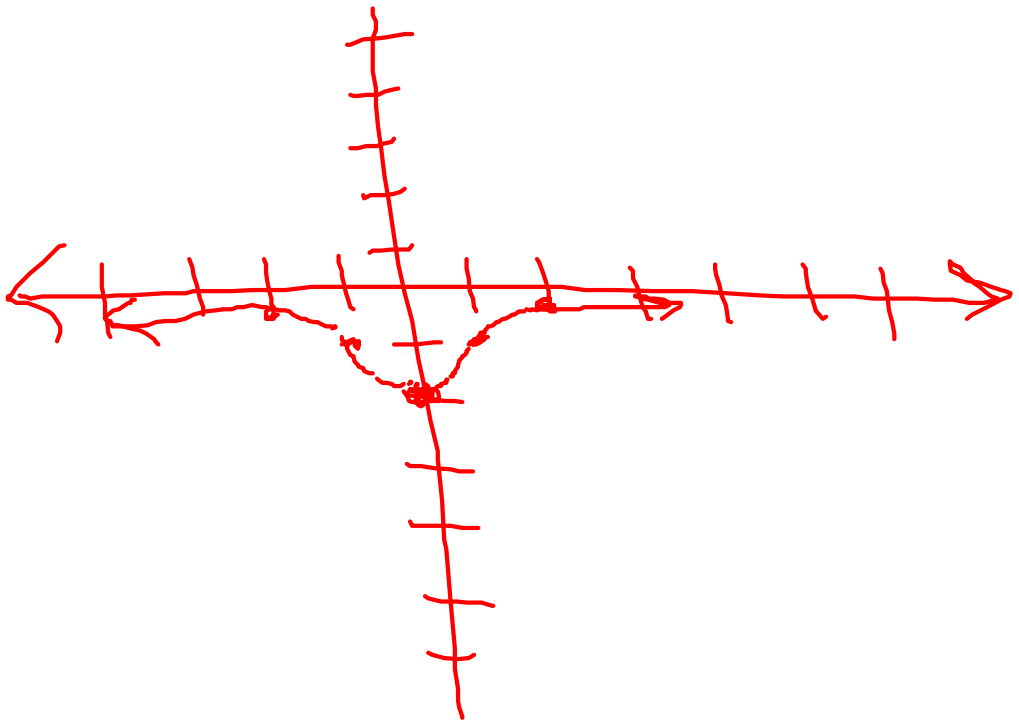
Cross? NO

x-int

None

y-int

$f(0) = -2$



(b) $F(x) = \dfrac{x^2-2x-3}{x^2-x-6} = \dfrac{(x-3)(x+1)}{(x-3)(x+2)}$

hole

VA: $x = -2$

HA: $y = 1$

$1 = \dfrac{x+1}{x+2}$

$x+2 \neq x+1$

x-int

$0 = \dfrac{x+1}{x+2}$

$0 = x+1$

$x = -1$

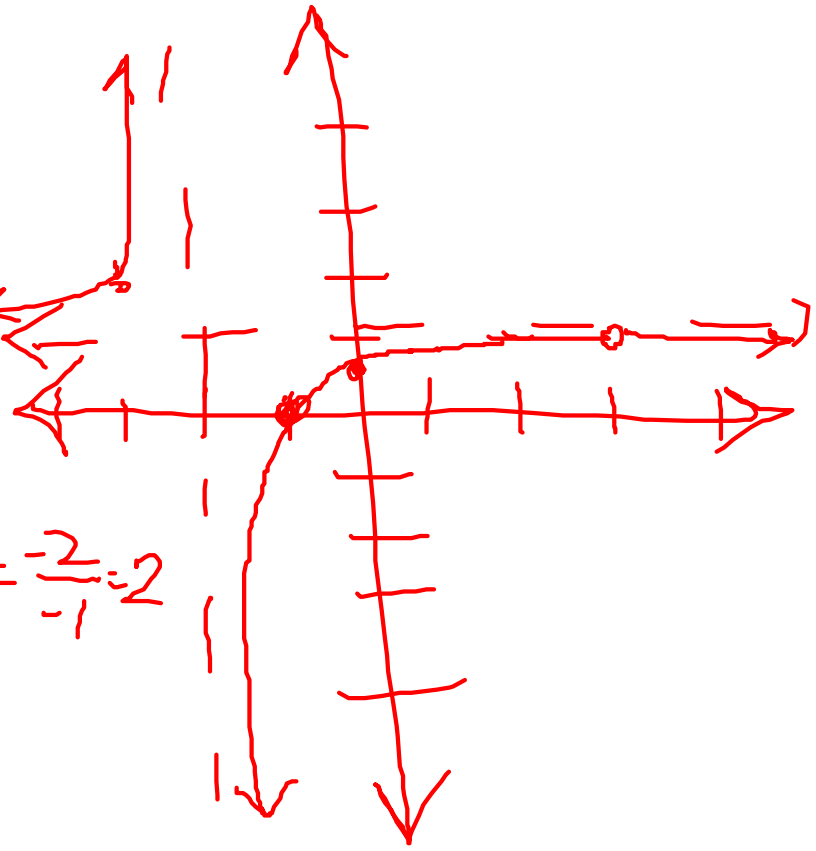
$(-1, 0)$

y-int

$f(0) = \frac{1}{2}$

$(0, \frac{1}{2})$

$f(-3) = \frac{-2}{-1} = 2$



(6) $f(x) = \dfrac{6x}{(x-1)(x+2)}$

VA $x = 1$
$x = -2$

HA $y = 0$

$0 = \dfrac{6x}{(x-1)(x+2)}$

$0 = 6x$

$0 = x$

Yes $(0,0)$

x-int

$0 = 6x$

$x = 0$

$(0,0)$